



**OPERATING PERMIT (Conditional Major)** Issued Pursuant to Tennessee Air Quality Act

**Date Issued:**

**Permit Number:**

452068

**Date Expires:** May 1, 2013

**Issued To:**

NCR Corporation

**Installation Address:**

5512 East Morris Boulevard  
Morristown

**Installation Description:**

Source 11: Coated Film Production (Pagendarm Coater)  
with Thermal Oxidizer Control  
Ink Compounding Room

**Emission Source Reference No.**

32-0018  
Conditional Major Source

Source 14: Two (2) 61.1 hp Boilers (No. 1 boiler, No. 2 boiler)  
One (1) 100 hp Boiler (No. 3 Boiler)  
One (1) 30 hp Boiler (No. 4 Boiler)  
One (1) 100 hp Boiler for Comfort Heating (No. 5 Boiler)

The holder of this permit shall comply with the conditions contained in this permit as well as all applicable provisions of the Tennessee Air Pollution Control Regulations.

**GENERAL CONDITION:**

1. The application that was utilized in the preparation of this permit is dated October 8, 1999 and signed by Mr. Todd Lilley, Operations Manager for the permitted facility. If this person terminates his employment or is reassigned different duties such that he is no longer the responsible person to represent and bind the facility in environmental permitting affairs, the owner or operator of this air contaminant source shall notify the Technical Secretary of the change. Said notification shall be in writing and submitted within thirty (30) days of the change. The notification shall include the name and title of the new person assigned by the source owner or operator to represent and bind the facility in environmental permitting affairs. All representations, agreement to terms and conditions and covenants made by the former responsible person that were used in the establishment of limiting permit conditions on this permit will continue to be binding on the facility until such time that a revision to this permit is obtained that would change said representations, agreements and covenants.

(conditions continued on next page)

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TECHNICAL SECRETARY

No Authority is Granted by this Permit to Operate, Construct, or Maintain any Installation in Violation of any Law, Statute, Code, Ordinance, Rule, or Regulation of the State of Tennessee or any of its Political Subdivisions.

NON-TRANSFERABLE

**POST AT INSTALLATION ADDRESS**

SECTION I: The following conditions shall apply to all sections of this permit unless otherwise noted.
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2. The permittee has elected to opt-out of being issued a major source operating permit pursuant to Division Rule 1200-3-9-.02(11)(a). The permittee would be considered a major source because their "potential to emit" value for volatile organic compounds (VOC) was greater than 100 tons per year at the time of application. The permittee has agreed to be subject to limitations in order to be below the major source applicability threshold for VOC of 100 tons per year.
3. Any non-compliance with any condition(s) of this permit set to restrain the "potential to emit" below the applicability thresholds of 1200-3-9-.02(11) of the Tennessee Air Pollution Control Regulations shall be reported in writing to the Technical Secretary within three (3) working days of such discovery. This notification, at a minimum, shall include the identification of the source, identification of the permit condition(s) violated, and details of the violation.
4. Volatile organic compounds (VOC) emitted from this facility shall not exceed 97 tons during any period of twelve (12) consecutive months. VOC emissions from insignificant activities at this facility including Paper Slitter and Reroll, Package Wrapping and Sealing Units, Rubber Molders, Water Bath, and Ink Impregnation of Rubber Rolls have the potential to emit no more than 6.0 tons per year. In order to avoid the necessity of keeping VOC emission records for these sources, 6.0 tons per year will be added to the facility-wide 12 consecutive month VOC emission total.

This emission limitation is established pursuant to Rule 1200-3-9-.02(11)(a) of the Tennessee Air Pollution Control Regulations and the information contained in the agreement letter dated April 20, 2001 from the permittee. The permittee has requested this limit in order to avoid Title V status.

5. A report stating the compliance status of this facility with **Condition 4** shall be submitted by March 31 of every year, beginning in the year 2004. This report shall cover the preceding calendar year and shall include the records required by **Conditions 12(c) and 16**. The report shall be submitted to the Knoxville Environmental Assistance Center at the following address:

Knoxville Environmental Assistance Center  
Division of Air Pollution Control  
2700 Middlebrook Pike  
Knoxville, TN 37921

6. Visible emissions from this source shall not exhibit greater than twenty percent (20%) opacity as determined by EPA Method 9, as published in 40 CFR 60, Appendix A. (six-minute average)
7. Routine maintenance, as required to maintain specified emission limits, shall be performed on the air pollution control device(s). Maintenance records shall be recorded in a suitable permanent form and kept available for inspection by the Division. These records must be retained for a period of not less than five (5) years.
8. Upon the malfunction/failure of any emission control device(s) serving this source, the operation of the process(es) served by the device(s) shall be regulated by Chapter 1200-3-20 of the Tennessee Air Pollution Control Regulations.
9. The issuance of this permit supersedes any previously issued permit(s) for this air contaminant source.
10. The permittee shall apply for renewal of this permit not less than sixty (60) days prior to the permit's expiration date.

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SECTION II: SOURCE SPECIFIC CONDITIONS
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32-0018-11 Ink Compounding and Coated Film Production with Thermal Oxidizer Control
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11. Except as specified in **Table 1**, the Pagendarm Coater shall not operate without the use of the thermal oxidizer. The thermal oxidizer shall operate with a minimum temperature of 1,400 degrees Fahrenheit at all times when in use.

**Table 1: Unit Operations, Pagendarm Coater**

Unit Operation	Required Air Pollution Control Device
Functional Coat Station	Thermal Oxidizer
Backcoat Station	Thermal Oxidizer
Subcoat Station	None
All Coating Operations using Water-based Coatings	None

12. Monitoring shall be performed in accordance with Rule 1200-3-18-.83(2)(b):
- a) The permittee shall install, calibrate, certify to the Technical Secretary, operate, and maintain continuous monitoring equipment. The continuous monitoring equipment shall monitor the combustion chamber temperature of the thermal incinerator.
  - b) The continuous temperature monitoring equipment must be equipped with a continuous recorder and have an accuracy within 1 percent of the combustion temperature expressed in degrees Celsius (°C) or within 0.5°C, whichever is greater. Records of the combustion chamber temperature shall be documented in a suitable permanent form and kept available for inspection by the Division. These records must be retained for a period of not less than five (5) years.
  - c) The facility shall maintain a record of any excursions below the minimum operating temperature. All temperature excursions shall be reported to the Division as specified in **Condition 5**. Records of temperature excursions must be retained at the facility for a period of not less than five (5) years.
13. Particulate matter (TSP) emitted from the coating operation shall not exceed 0.02 grains per dry standard cubic foot of stack gases (2.0 pounds per hour).
14. Records of purchase orders and invoices for all VOC and HAP containing materials along with current material safety sheets shall be maintained and kept available for inspection by the Technical Secretary or his representative. These records must be retained for a period of not less than five (5) years.
15. The as-supplied VOC content of all VOC-containing materials to be used by this source shall be determined as follows:

All Coatings, Inks, Adhesives, Thinners, and Solvents - from Material Safety Data Sheets (MSDS) or manufacturer or vendor formulation data which explicitly list the VOC content by weight.

The results of these determinations shall be compiled in the following tabular format or an alternative format which readily provides the same required information. This table, along with MSDS or other supporting documentation for each material used, shall be maintained at the source location and made available for inspection by the Technical Secretary or his representative, beginning 180 days from the issue date of this permit. If new materials are used, or if material formulation is changed, the table shall be updated within 90 days from the initial date of usage of the new or altered material.

Process Material Description	Material Density (lb/gal)	VOC Content (lb/gal)
Material #1		
Material #2		
etc.		

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16. The permittee shall calculate the actual quantities of VOC and HAPs emitted from the ink compounding room and the subcoat station of the Pagendarm Coater, and the actual quantities of VOC and HAPs input to the thermal oxidizer, during each calendar month and maintain records of these emissions in a form that readily shows compliance with **Condition 4** of this permit. These records must be maintained at the source location and kept available for inspection by the Technical Secretary or his representative. These records must be retained for a period of not less than five (5) years.
17. VOC and HAP emissions from the Pagendarm Coater (Functional Coating and Backcoating operations) shall be determined as follows by using data from the most recent source tests for  $\eta_{\text{Overall}}$ . Currently, the overall efficiency of the thermal oxidizer is 99.7%, based on the performance test conducted on August 26, 2001. Emissions calculated by this method shall be added to the monthly total emissions calculated in **Condition 16**.

$$\text{VOC}_{\text{Emission}} = \text{VOC}_{\text{Input}} \times (1 - \eta_{\text{Overall}})$$

Where:

- $\text{VOC}_{\text{Emission}}$  is the emission of VOCs and/or HAPs.
- $\text{VOC}_{\text{Input}}$  is the amount of VOC or HAP input to the thermal oxidizer, calculated in **Condition 16**.
- $\eta_{\text{Overall}}$  is the overall efficiency, or the product of the capture and destruction efficiency.

18. Within 60 days of the issuance of this permit, the owner or operator shall furnish the Technical Secretary a written report of the following procedures:
- a) Procedure for calculation of VOC emissions as required by **Conditions 16 and 17**.
  - b) Startup and shutdown procedures for the thermal oxidizer, including leak prevention procedures for any process equipment purge located on the thermal oxidizer inlet ductwork.

The completed reports shall be delivered to the Compliance Validation Program and the Environmental Assistance Center at the addresses listed below.

Compliance Validation Program  
Division of Air Pollution Control  
9th Floor, L & C Annex  
401 Church Street  
Nashville, TN 37243-1531

Knoxville Environmental Assistance Center  
Division of Air Pollution Control  
2700 Middlebrook Pike  
Knoxville, TN 37921

19. The enclosure for the Functional Coat Station and Back Coat Station of the Pagendarm Coater shall meet the following criteria for Permanent Total Enclosure, as specified in 40 CFR Part 51, Appendix M, Method 204, to assure 100% capture of VOC:
- a. Access doors and windows shall remain closed during routine operation.
  - b. The interior of the enclosure shall be kept at a negative pressure.
  - c. Air flow through all natural draft openings (NDO) shall be at least 200 feet per minute (fpm), with a verification of continuous flow into the enclosure. (No verification is needed if flow into the enclosure is at least 500 fpm.)
  - d. Source(s) of VOC shall be at least four equivalent diameters away from NDO.

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**32-18-14****Fuel Burning Sources**

Two (2) 61.1 hp Boilers (No. 1 boiler, No. 2 boiler)  
 One (1) 100 hp Boiler (No. 3 Boiler)  
 One (1) 30 hp Boiler (No. 4 Boiler)  
 One (1) 100 hp Boiler for Comfort Heating (No. 5 Boiler)

20. The total maximum heat input capacity for all fuel-burning sources shall not exceed 12 MMBtu/hr (million Btu per hour), on a daily average basis. The Technical Secretary may require the permittee to demonstrate compliance with this limit.
21. Only natural gas or liquid propane shall be used as fuels for the No. 1 boiler, No. 2 boiler, No. 3 boiler, and No. 4 boiler.
22. Only natural gas or No. 2 fuel oil shall be used as fuels for No. 5 boiler.
23. The sulfur content of the No. 2 fuel oil shall not exceed 0.5 percent by weight. Compliance with this requirement may be assured by providing an analysis of each fuel oil shipment, or by providing a written statement, obtained from each vendor on an annual basis, guaranteeing in advance that all fuel oil sold to the company will contain no more than 0.5 percent sulfur by weight. These records must be maintained at the source location and kept available for inspection by the Technical Secretary or his representative. These records must be retained for a period of not less than five (5) years.
24. Particulate matter (TSP) emitted from all fuel-burning sources shall not exceed 7.1 lb/hr (pounds per hour) on a daily average basis.
25. Sulfur dioxide (SO<sub>2</sub>) emitted from all fuel-burning sources shall not exceed 5.0 pounds per million Btu (lb/MMBtu) and shall not exceed 10 tons during any period of twelve (12) consecutive months. Compliance with this limitation shall be demonstrated by compliance with **Conditions 21, 22, and 26** of this permit.  
  
 This emission limitation is established pursuant to Rule 1200-3-14-.01(3) of the Tennessee Air Pollution Control Regulations and the information contained in the agreement letter dated April 15, 2003 from the permittee. The permittee has requested this limit in order to reduce annual emissions fees.
26. A log of the fuel oil usage must be maintained at the source location and kept available for inspection by the Technical Secretary or his representative. This log must be retained for a period of not less than five (5) years.
27. The maximum VOC emission rate from all fuel-burning sources has been calculated to be less than 1.0 ton per year. In order to avoid the necessity of keeping VOC emission records for fuel-burning sources, 1.0 ton per year will be added to the facility-wide 12 consecutive month VOC emission total.
28. The permittee is placed on notice that Industrial/Commercial/Institutional Boilers and Process Heaters are scheduled for regulation under Section 112 of the Clean Air Act for promulgation of Maximum Achievable Control Technology (MACT) standards. This permit will be revised as necessary to include applicable requirements from this rule.

(end of conditions)